

**A SYSTEM AND METHOD OF OPERATING A PROGRAMMABLE  
COLUMN FAIL COUNTER FOR REDUNDANCY ALLOCATION**

**ABSTRACT OF THE DISCLOSURE**

The present invention includes a system and a methodology for eliminating faulty memory cells in a memory array with replacement columns of memory cells and replacement rows of memory cells. The individual memory cells are checked to ensure that each is operational. Non-operational cells are replaced by first replacing columns which contain a number of non-operational cells with spare columns and second removing any remaining non-operational cells by replacing the rows containing those non-operational cells with spare rows.

5